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EXAMINER	
DUFFIELD, JEREMY S	
ART UNIT	**PAPER NUMBER**
2427	
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05/06/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/841,423	CARNEY ET AL.	
	Examiner	Art Unit	
	JEREMY DUFFIELD	2427	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 March 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-6,8-11,13 and 15-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-6,8-11,13 and 15-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10 March 2009 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 1, 3-6, 8-11, 13, and 15-20 have been considered but are moot in view of the new ground(s) of rejection.

Specification

3. The disclosure is objected to because of the following informalities: Para 65, line 3, “Memory devices 308 may" needs to be changed to --Memory devices 738 may--. Also in Paragraph 65, line 5, “stored in memory devices 138 can" needs to be changed to --stored in memory devices 738 can--. Appropriate correction is required.

Claim Objections

4. Claim 19 is objected to because of the following informalities: Line 2, "a broadcaster or network operation" needs to be changed to --a broadcaster or network operator--. Appropriate correction is required.

Claim Rejections - 35 USC § 101

5. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claims 13 and 15 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 13 and 15 are drawn to functional descriptive material stored on a machine-readable medium. Normally, the claim would be statutory. However, the specification, at Para. 65, defines the claimed machine-readable medium as encompassing statutory media such as a "RAM", "magnetic disk storage media", etc, as well as *non-statutory* subject matter such as a "carrier wave signals", "infrared signals", etc. In this case, a "machine-readable medium storing instructions" can be broadly interpreted to mean a --machine-readable signal storing instructions--, wherein the signal stores the instructions.

A "signal" embodying functional descriptive material is neither a process nor a product (i.e., a tangible "thing") and therefore does not fall within one of the four statutory classes of § 101. Rather, "signal" is a form of energy, in the absence of any physical structure or tangible material.

Because the full scope of the claim as properly read in light of the disclosure encompasses non-statutory subject matter, the claim as a whole is non-statutory.

Any amendment to the claim should be commensurate with its corresponding disclosure.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 1, 3-6, 8-11, 13, and 15-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marsh (US 7,080,039) in view of Pinder (US 6,424,717).

Regarding claim 1, Marsh teaches in an interactive television (TV) environment (Fig. 2), a method for selectively providing authorized interactive TV content comprising:

associating a first authorization key or first personalization data with a respective second authorization key or second personalization data, Note: the keys or data have to be associated so that the encrypted content can be decrypted (Col. 16, line 60-Col. 17, line 53; Col. 15, lines 9-20);

broadcasting interactive TV content via a broadcast stream (Col. 3, lines 19-62; Col. 6, lines 41-63; Col. 14, lines 38-52),

wherein at least some of the interactive TV content is tagged content, the tagged content being marked by tags having one or more authorization keys or personalization data (Fig. 4, el. 270, 268, 279; Col. 9, lines 10-56; Col. 14, lines 15-25; Col. 16, line 60-Col. 17, line 53); and

wherein the tagged content is authorized for display only by receivers provided with matching authorization keys or personalized data (Fig. 4, el. 270, 268, 279; Col. 9, lines 10-56; Col. 14, lines 15-25; Col. 16, line 60-Col. 17, line 53); and

wherein the matching authorization keys or personalized data are selectively provided to one or more of the receivers such that at least some of the one or more receivers are authorized to selectively output or make use of the tagged content based on matching authorization keys or personalized data (Col. 6, lines 41-63; Col. 14, lines 38-52; Col. 16, line 60-Col. 17, line 53; Col. 15, lines 9-20).

Marsh does not clearly teach selectively broadcasting the second authorization key or second personalization data.

Pinder teaches associating a first authorization key or first personalization data, i.e. Entitlement Control Message (ECM) that contains a control word, a multi-session key (MSK), service identifier, etc (Col. 9, lines 32-47), with a respective second authorization key or second personalization data, i.e. Entitlement Management Message (EMM) that contains the MSK, service authorization information, etc (Col. 7, lines 49-58; Col. 9, lines 32-47), Note: the

ECM and EMM data are associated by the corresponding MSK, the service identifying information, etc (Fig. 3, el. 321, 327; Col. 9, lines 32-47);

broadcasting the interactive TV content via a broadcast stream (Col. 4, lines 5-29; Col. 35, lines 35-59; Col. 39, lines 30-61),

wherein at least some of the interactive TV content is tagged content, the tagged content being marked by a tag comprising the first authorization key or first personalization data, i.e. packets containing the keys and control words of the ECMs are transmitted with the content (Col. 36, lines 13-39; Col. 40, lines 59-67), Note: the "tagged content" in this instance is the encrypted content in which the ECM corresponds; and

wherein the tagged content is authorized for display only by one or more receivers provided with the respective second authorization key or second personalized data, i.e. the EMMs are addressed to specific DHCTs and contain the corresponding authorization information (Col. 4, lines 51-67; Col. 6, lines 47-65; Col. 35, lines 47-67); and

wherein the second authorization key or second personalized data are selectively broadcast to the one or more of the receivers such that the one or more receivers are authorized to selectively output or make use of the tagged content based on the second authorization key or second personalized data (Col. 4, lines 51-67; Col. 6, lines 47-65; Col. 9, lines 32-47; Col. 35, lines 47-67); and

a smart card that stores the keys and entitlement information (Col. 21, lines 30-61).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Marsh to include selectively broadcasting the second authorization key or second personalization data and the known encryption/decryption techniques taught by Pinder and using the known technique to improve the Marsh in the same way for the purpose of providing access restrictions which are both more secure and more flexible (Pinder-Col. 2, lines 50-52).

Regarding claim 3, claim is analyzed with respect to claim 1.

Regarding claim 4, Marsh in view of Pinder teaches checking the tag comprising the first authorization key or first personalization data with the second authorization key or second personalization data selectively broadcast to the one or more receivers or the one or more network system nodes, the checking performed by one or more receivers via use of a remote control or directly at the one or more network system nodes using a console application (Marsh-Col. 4, lines 21-67; Col. 8, lines 33-64; Col. 9, lines 10-42; Pinder-Col. 9, lines 32-47; Col. 37, line 36-Col. 38, line 47).

Regarding claim 5, Marsh in view of Pinder teaches displaying the interactive TV content when the checking reveals a match between the first authorization key or the first personalization data comprising the tag and the

second authorization key or second personalization data selectively broadcast to the one or more receivers or the one or more network system nodes (Marsh-Col. 11, line 40-Col. 12, line 42; Col. 16, line 45-Col. 17, line 54; Pinder-Col. 9, lines 32-47; Col. 37, line 36-Col. 38, line 47).

Regarding claim 6, claim is analyzed with respect to claim 1. Marsh in view of Pinder further teaches a key/personalization system distribution server, (Marsh-Col. 16, line 60-Col. 17, line 53; Pinder-Fig. 1, el. 103; Fig. 3, el. 306, 308; Col. 7, lines 19-49).

Regarding claim 8, claim is analyzed with respect to claim 3.

Regarding claim 9, claim is analyzed with respect to claim 4. Marsh in view of Pinder further teaches a filtering module, i.e. encryption module and content protection controller module (Marsh-Fig. 3, el. 222, 238; Pinder-Col. 9, lines 32-47; Col. 37, line 36-Col. 38, line 47).

Regarding claim 10, claim is analyzed with respect to claim 5.

Regarding claim 11, claim is analyzed with respect to claims 1, 9, and 10.

Regarding claim 13, claim is analyzed with respect to claim 1.

Regarding claim 15, claim is analyzed with respect to claims 1, 4, and 5.

Regarding claim 16, claim is analyzed with respect to claim 6. Marsh in view of Pinder further teaches the server to receive a television broadcast (Pinder-Fig. 3, el. 306, 325).

Regarding claim 17, claim is analyzed with respect to claim 4.

Regarding claim 18, claim is analyzed with respect to claim 5.

Regarding claim 19, Marsh in view of Pinder teach a broadcaster or network operator determines which TV broadcast can include interactive content, i.e. the interactive content is inserted into the broadcast stream (Marsh-Col. 3, lines 49-62; Col. 6, lines 41-56; Pinder-Col. 23, line 61-Col. 24, line 5; Col. 35, lines 35-60).

Regarding claim 20, Marsh in view of Pinder teach the broadcaster or network operator determine which keys and/or personalization data to use to tag the interactive content (Marsh-Col. 7, lines 1-10; Col. 16, line 60-Col. 17, line 10; Pinder-Col. 23, line 61-Col. 24, line 5; Col. 35, lines 35-60).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JEREMY DUFFIELD whose telephone number is (571)270-1643. The examiner can normally be reached on Mon.-Thurs. 8:00 A.M.-5:30 P.M. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Scott Beliveau can be reached on (571) 272-7343. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

29 April 2009
JSD

/Scott Beliveau/
Supervisory Patent Examiner, Art Unit 2427